

## CLAIMS:

1. A device (1) arranged for monitoring a physiological parameter of an individual (2), said device comprising:
  - a sensor (8) arranged to measure a signal (S1) related to said parameter when said sensor is brought into contact with the individual's skin (50);
  - 5 - an adjustable carrier (6) arranged to support said sensor and to resiliently conform to a body part of the individual so that a contact pressure is applied to the sensor (8);
  - an actuator (10) arranged to interact with the adjustable carrier (6) in order to modify the contact pressure;
  - control means (12) arranged to control the contact pressure in dependence on a
  - 10 control signal applied to the actuator (10).
2. A device according to claim 1, wherein the control means (24,25) comprises a logic unit (24a, 25a) arranged to evaluate an objective value of the contact pressure (P) and to determine a value of the control signal (CS) based on said evaluation.
- 15 3. A device according to claim 2, wherein the objective value of the contact pressure (P) is determined from a reading of a further sensor (23).
4. A device according to claims 2 or 3, wherein the adjustable carrier (31)
- 20 comprises a piece of elastic material, the actuator (36) being arranged to modify the length of said piece upon receipt of the control signal (CS) thereby modifying the contact pressure.
5. A device according to claim 2 or 3, wherein the actuator comprises an inflatable bag (46), said bag being spatially arranged between the adjustable carrier (42) and
- 25 the sensor (46), a volume of a fluid in said bag being controlled by the control signal (CS).
6. A monitoring body-wear (4) comprising:
  - a piece of elastic material (6) arranged for supporting a sensor (8) conceived to carry out a measurement of a physiological parameter (S1) of an individual when brought

into contact with the individual's skin, said piece of material being arranged to conform to a body part of the individual so that a contact pressure (P) is applied to the sensor (8), said monitoring body-wear further comprising:

- an actuator (10) arranged to interact with the piece of material (6) in order to  
5 modify the contact pressure (P) automatically.

7. A body-wear according to claim 6, wherein the actuator (36) is arranged to modify the length of said elastic material (31) upon receipt of a control signal (CS).

- 10 8. A body-wear according to claim 6, wherein the actuator comprises an inflatable bag (46), said bag being conceived to be located between the piece of elastic material (42) and the sensor (46) and to change its volume upon receipt of a control signal (CS).